

MODELS: Beechcraft 18A, S18A

T.C. NUMBER: 630

I - Model 18A, 8 PCLM (Approved 3/4/37)

Engine	2 Wrights R-760E-2 (-48.5)
Fuel	80 minimum octane aviation gasoline
Engine limits	Maximum continuous, 2200 rpm (320 hp) Take-off (one minute), 2400 rpm (350 hp)
Propeller limits	Maximum permissible, diameter 100 in.
A. With Item 102:	
Usable ceiling	6700 feet absolute (density altitude) either engine inoperative
Airspeed limits	Level flight or climb - 200 mph True Ind. Glide or dive - 243 mph True Ind. Flaps extended (60 degrees) - 117 mph True Ind.
Maximum weight	6700 lbs.
C.G. range	(+1.2) to (+19.9)
E. With Item 221:	
Usable ceiling	3800 ft. in. standard air at an indicated airspeed of 90 mph at 7200 lbs. with either engine in- operative and inoperative propeller idling in positive high pitch of 700 rpm.
Airspeed limits	Level flight or climb - 203 mph True Ind. Glide or dive - 219 mph True Ind. Flaps extended (60 degrees) - 117 mph True Ind.
Maximum weight	7200 lbs.
C.G. range	(+2.5) to (+16.5)
Datum	Center line of the wing beam at the fuselage
No. seats	7 or 8 (See Item 210 for location)
Baggage	Maximum capacity 110 lbs. Forward compartment 600 lbs. (-74) (300 lbs. (-84) (with Item 204)) Rear compartment 300 lbs. (+141) Nacelle compartment 100 lbs. each (+27) (with Item 220 only)
Fuel capacity	158 or 160 gallons (two tanks in wing at 78 or 80 gallons each (+24))

Oil capacity	16 gallons (8 gallon tank in each nacelle at 4-1/2 lbs.) (-32) (See Item 205 for optional tanks)
Control surface movement	Not available
Serial Nos. eligible	62 and up except 222
Required equipment	Item 101, 102, 103, 104, 105, 106, 107, 108, 109, 110, 111, and 112

II - Model S18A, 8 PCSM (Approved 10/13/41)

Engine	2 Wrights R-760E-2 (-48.5)
Fuel	80 minimum octane aviation gasoline
Engine limits	Maximum continuous, 2200 rpm (320 hp) Take-off (one minute), 2400 rpm (350 hp)
Airspeed limits	Level flight or climb - 170 mph True Ind. Glide or dive - 207 mph True Ind. Flaps extended (60 degrees) - 117 mph True Ind.
Propeller limits	Maximum permissible diameter 102 inches
Usable ceiling	Zero ft. absolute (density altitude either engine inoperative (+1.2) to (+19.0))
C.G. range	Center line of the wing beam at the fuselage
Datum	7200 lbs.
Maximum weight	7 or 8 (See Item 210)
No. seats	Maximum capacity 1100 lbs.
Baggage	Forward compartment 600 lbs. (-74) (300 lbs. with Item 204) Rear compartment 300 lbs. (+141) Nacelle compartments 100 lbs. each (+27) (with Item 220 only)
Fuel capacity	1656 or 160 gallons (two tanks in wing at 78 or 80 gallons each (+24))
Oil capacity	16 gallons (8 gallon tank in each nacelle at 4-1/2 lbs.) (-32) (See Item 205 for optional tanks)
Control surface movements	Not available
Serial Nos. eligible	62 and up except 222
Required equipment	Items 101, 104, 106, 107, 108, 109, 110, 111, 112, 115, and 152

Specifications Pertinent to All Models

Certification basis	Type Certificate No. 630 (Aero. Bulletin 7A)
Production basis	None (See NOTE A)
Export eligibility	Eligible for export as follows subject to provisions of MOP 2-4:
	(a) Canada
	- Landplane and Seaplane - eligible.
	- Skiplane - not eligible. However, structure complies with Canadian requirements for ski installation when Item 213 is installed, with tread of 155 in. and pedestal height of 13 in., and distances from ski bottom to V-Brace attachment, with gear in half-deflected position, as follows:
	Distance 48.5 in., maximum weight 6700 lbs.
	37.3 in., maximum weight 7200 lbs.
	(b) All other countries except New Zealand.

EQUIPMENT: A plus (+) or minus (-) sign preceding the weight of an optional item indicates the net weight change between that item and the equivalent required item.

Propellers and Propeller Accessories

112. Propellers - Hamilton Standard	
hubs 2B20, blades 6136A-12,	
low pitch setting 16 degrees	(-66)

Engines and Engine Accessories - Fuel and Oil System

101. Two engine ring cowls	50 lbs.	(-52)
104. Two oil radiators (Harrison)	14 lbs.	(-60)
109. Bonding and shielding	30 lbs.	(-46)
110. Wobble pump	4 lbs.	(-23)
204. Auxiliary 50 gallon fuel tank in forward baggage compartment	32 lbs.	(-64)
205. Oil tanks		
(a) Two 5 gallon (one in each nacelle)	9 lbs.	(-32)
(b) Two 6-1/2 gallon (one in each nacelle)		(-32)
207. Two starters (Eclipse)	40 lbs.	(-34)
217. Mixture analyzer		

(a) Cambridge	9 lbs.	(-39)
(b) Breeze	8 lbs.	(-39)
Landing Gear and Floats		
102. 5 inch wheels (Goodyear 5HBM) and 29x13-5 tires	118 lbs.	(-8)
103. 12x5-3 tail wheel with heavy duty tire (wheel must be placarded for heavy duty tire)	7 lbs.	(+261)
151. Edo Model 55-7170 floats with water rudders (Drawing No. 55-S-007), auxiliary seaplane fin (Drawing No. S-186221), seaplane center section spar (Drawing No. S-18422, Rev. B)	813 lbs.	(+19)
213. Skiplane landing gear (Drawing 18800K or 19000K, 18110 Rev. C; shock struts 7466 or 188400K)	813 lbs.	(+19)
214. Dual brake installation (Drawing No. 187840)		
221. 5 inch wheels (Goodyear 5 HBM), and 29x13-5 H.D. tires (stencil on landing gear fork must state, "Use Heavy Duty Tires Only") (required for 7200 lbs. maximum weight)	122 lbs.	(-9)
Electrical Equipment		
105. Two landing gear operating motors (Dumore D-5)	18 lbs.	(-12)
106. Wing flap operating motor (Dumore No. 3549)	8 lbs.	(-12)
107. Generator (Eclipse) 25 amp	20 lbs.	(-34)
108. Battery (Exide 6TS-13-1)	36 lbs.	(+7) or (-
201. Generators		
(a) Eclipse 50 amp	32 lbs.	(-34)
(b) Eclipse 3171-R	12 lbs.	(-34)
206. Landing lights (Grimes)	9 lbs.	(+27)
215. Battery (in right and/or left wing leading edge near fuselage)		(-18) or (
(a) Reading 6-ARL-11	46 lbs. each	
(b) Reading 6-ARL-9	56 lbs. each	
(c) Exide 6XT-13	64 lbs. each	
(d) Exide 6-TS-7-1	26 lbs. each	
Interior Equipment		
111. Toilet equipment	7 lbs.	(+106)
202. Flares (type, number and location must be shown in weight and balance report)		(-52) or (
208. Two heaters	20 lbs.	(-16)
209. Pressure fire extinguisher (type, number and location must be shown in weight and balance report)		
210. Seats (type, number and location must be shown in weight and balance report):		
(a) Standard passenger seat and belt	17 lbs.	
(b) Couch (3 place) with belts	39 lbs.	
(c) Couch (4 place)	Use actual weight	
(d) Folding seat (Drawing No. 18342)	7 lbs.	(+117)
(e) Extra seat (rear of cabin)	18 lbs.	(+115)
With 3-place couch installed standard arrangement of 3 row of 2 seats each at passenger arms of 22, 54, and 86 is changed to 15, 41, and 67 for the couch and 2 individual seats at 37 and 71 inches. With 4-place couch installed the passenger arms are 12, 32, 52 and 72 for the couch with 2 individual seats at 37 and 71.		
211. Vacuum pumps		
(a) Eclipse AP-8 and accessories	8 lbs.	(-32)
(b) Romec and accessories	5 lbs.	(-32)
216. Toilet equipment	7 lbs.	(+140)
219. Parachute (back pack 24 ft. will fit standard seat)	15 lbs.	
Miscellaneous (not listed above)		
152. Replacement - "V" Brace Seaplane (Drawing No. S-18811)		
220. Nacelle baggage compartments: Seaplane, skiplane or fixed		

landing gear only (Drawing No.
I-18024)

NOTE 1. Current weight and balance report including list of equipment included in certificated weight empty, and loading instructions when necessary, must be in each aircraft at the time of original certification and at all times thereafter (except in the case of air carrier operators having an approved weight control system).

NOTE A. Prior to original certification, each aircraft manufactured subsequent to August 7, 1945, must satisfactorily pass:

- (a) An inspection for workmanship, materials and conformity before covering, metal priming or final finish is applied.
- (b) A final inspection of the completed aircraft.
- (c) A check of the flight characteristics.